

Comprehensive Programs for the Visually Handicapped:

Braille Readiness and Reading Materials from the

American Printing House for the Blind

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Abstract

At the base of a truly comprehensive reading program, there must be a solid readiness program. In many respects this preparation for beginning reading is no different for the child who will be reading braille than for the child who will be reading print. For the blind child, however, the readiness areas of auditory discrimination, tactual discrimination, language development, and concept development are critical. This article discusses these four critical areas along with materials from the American Printing House for the Blind which can be used to prepare the blind child for beginning braille reading.

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At the base of a truly comprehensive beginning reading program, there must be a solid readiness program. Readiness is the foundation on which the skill of reading is built. It is the sum total of the experiences the child brings to the written page. For a child to be ready to begin the complex process of reading, he or she must be ready mentally, physically, emotionally, socially, and linguistically (Gray, 1963).

In many respects this preparation for beginning reading is no different for the child who will be reading braille than for the child who will be reading print. Each has a complex task ahead and needs to be ready mentally, physically, emotionally, socially, and linguistically. However, because so much of what a child learns normally comes through vision, a blind child is at a distinct disadvantage and needs extra help. For the braille reader the four most critical areas of readiness have been identified as "auditory and tactual discrimination, language development, and breadth of experience" (Nolan & Kederis, 1969, p. 43).

Patterns: The Primary Braille Reading Program is a comprehensive, basic reading program. However, the Readiness Level of Patterns is not meant to be a total school readiness program. It is rather a transition that centers on specific prereading concepts and activities geared to helping the blind child take that first giant step into reading.

To provide early reading readiness for the blind child, teachers can avail themselves of a number of other materials available from the American Printing House for the Blind.

In the sections that follow, the four critical areas of readiness preparatory to working in Patterns will be discussed along with suggestions for using particular Printing House materials.

Auditory Discrimination

Auditory discrimination is obviously important to the success of the blind child in early reading because early reading often depends upon the child being able to detect likenesses and differences among speech sounds.

If a child has normal auditory acuity, at an early age he or she should be helped to identify objects and people by sounds and should learn to associate words with people, objects, and events. Activities to help the child develop auditory discrimination

should focus on loud and soft sounds, high and low pitches, simple rhythms, sounds in the child's environment, identification of familiar voices, and sequencing of sounds (Pittam, 1965). Without the distraction of vision, blind children may even excel in such things as their awareness of environmental sounds and noting differences in voices (Harley, Henderson, & Truan, 1979).

A number of materials are available for building auditory discrimination. At a very early age, activities and materials from the auditory portion of the Sensory Stimulation Kit or its Auditory Kit can be used. The behavioral goals listed on the activity cards will help to determine the most appropriate activities for each individual. Sound Matching Boards I and II can also be used to help develop auditory discrimination as well as some tactual and organizational skills.

As soon as the child has mastered these kinds of auditory discriminations, he or she should be ready for the more advanced discrimination activities in the Readiness Level of Patterns. On this level the child will learn to discriminate the initial (b), (g), (k), (m), and (w) sounds and then to associate them with the symbols b, g, c, m, and w respectively. Included, too, are vocabulary enrichment activities which highlight onomatopoeic and imitative words.

Tactual Discrimination

Because the blind child will read with fingers instead of eyes, the development of tactual discrimination is crucial in reading readiness.

By the time a blind child is ready to begin reading braille, he or she should have developed his or her fingertips and small muscles to the point of easy discrimination of braille shapes. The child should also be able to use his or her hands and fingers to examine things meaningfully, to move from line to line rhythmically, and to keep his or her fingers on both hands curved comfortably on a page (Harley, Henderson, & Truan, 1979).

Tactual skills start developing with gross discriminations as the child begins to search for and locate objects. As the child becomes aware of and pays attention to attributes of shape, size, weight, texture, and temperature, he or she begins to recognize and manipulate real concrete objects from the environment. At this very early stage of development, activities and materials emphasizing awareness, texture, weight, and temperature from the tactual portion of the Sensory Stimulation Kit or its Tactual-kinesthetic Kit can be used.

As the child acquires more and more experiences with real objects, he or she will need to develop coordination, control, and strength in his or her hands and fingers. He or she will also be ready for some experiences with two-dimensional representations. In The Tactual Road to Reading Guidebook (Kurzahls, 1974), ten types of hand skills which should be presented in sequence are given as follow: (a) handling, placing, and stacking; (b) putting together; (c) stringing; (d) arranging; (e) fitting; (f) pushing and pulling; (g) opening and closing; (h) screwing and twisting; (i) assembling; and (j) maneuvering. In addition to the materials suggested for using these skills, there are a number of other materials which can be used to teach these skills.

For handling, placing, and identifying textures, the Large Textured Block can be used. The Formboard with Removable Hands is good for practicing placing and illustrates a two-dimensional representation of a familiar object.

The Giant Textured Beads and the Shoelace Aid can be used to develop the skills of stringing and lacing.

The Shape Board and the Chang Tactual Diagram Kit can be used for developing the skill of arranging and working with two-dimensional representations.

The skill of fitting can be practiced with the Geometric Forms, the Mitchell Wire Forms with Matched Planes and Volumes, the In and Out Board, the Small, Medium, and Large Circles I, the Small, Medium, and Large Circles II, the Textured Pegs, the Peg Kit, Peg-a-circle, the Textured Matching Blocks, the Puzzle Form Board Kit, the Seated Parquetry Set, and the Cardboard Squares for Parquetry Work.

The beads on the Large Abacus or the Cranmer Abacus can be used for exercising pushing and pulling skills, and at the same time, children will become familiar with a very useful math tool.

The Round and Square Containers with Screw Tops from the Prevocational Skills Development Materials Kit can be used for developing container opening and closing skills.

Screwing and twisting skills can be exercised using the Bolt Practice Boards from the Prevocational Skills Development Materials Kit and the Wooden Constructo Set, Junior or Senior size.

The Wooden Constructo Sets and the Geometric Area and Volume Aid can be used for practicing the skill of assembling things.

Maneuvering skills can be developed with materials like the Swing Cell and the Sensory Cylinder Set.

As the visually handicapped child examines and plays with these and many other objects in his or her environment, there are some things that the person supervising the activities needs to be aware of. First, young children, especially those under 3 years of age, like to put things in their mouths, and blind children are certainly no exception. Second, materials originally intended for other purposes can often be used with blind children in a different way. For example, the Chang Tactual Diagram Kit was originally made to aid blind children 6 years old and older with orientation and mobility. This kit can be used for other activities like arranging, but some of the pieces are small and could be swallowed. Therefore, some caution should be taken when using it with younger children.

When a blind child is using small objects for his or her activities a Work/Play Tray will help to keep the objects within easy reach and will save the supervisor from continuously retrieving lost objects. Later the child will learn to touch objects without pushing them away, and a tray may not be as necessary.

According to Harley, Henderson, & Truan, "A desire to read underlies the total readiness program" (1979, p. 52). It is necessary to take special care to introduce the blind child to the idea of reading and books since he or she cannot observe the many opportunities for reading which occur every day. It is important to expose the child to reading and braille as "written language" as much as possible (Lowenfeld, Abel, & Hatlen, 1969). Some common ways of doing this include reading aloud books to the child produced in both print and braille and putting braille labels on familiar objects in the child's environment, calling the child's attention to the braille so that he or she will have a chance to examine it tactually.

The Tactual Road to Reading, Pamphlet IV, and many of its accompanying books will not only help to develop fine tactual discrimination skills but will also provide positive, meaningful experiences with books. Included are directions for making and using the Texture Books which contain real objects and textures in a book format and Books of Objects which are smaller and contain different kinds of things in one category such as paper or buttons.

At this point the child could begin Touch and Tell, Volume I and Volume II, followed by the Tactual Discrimination Worksheets, Part I. These materials all present geometric shapes. Then there

are the Skill Books produced in thermoform as part of the Tactual Road to Reading, Pamphlet IV, which give the child practice in tracking and examining pages with various arrangements of things like sticks and blocks.

Next the child will be ready to do the activities in Parts II and III of the Tactual Discrimination Worksheets. These activities deal with raised lines and angular figures. Touch and Tell, Volume II and Part IV of the Tactual Discrimination Worksheets introduce the child to activities involving the discrimination of braille shapes.

Finally the Roughness Discrimination Test can be used to predict braille reading readiness in blind first graders and can also be used to observe the organization of the child's search method.

Once the child has mastered these and similar tactual discrimination activities, he or she should be ready for the tactual discrimination activities in the Readiness Level of Patterns. These activities begin with the tactual discrimination of braille shapes and then introduce the child to the letters of the alphabet and to words.

Language Development

Because reading is a language skill, it is important that the child develop good speaking and listening skills before beginning reading. Lowenfeld, Abel, & Hatlen (1969) stated, "The child, in order to be ready to read, must be ready to share his ideas, his thoughts, his experiences in spoken language" (p. 137). Williams (1980) added "Anything which helps the growth of language and communication is helping braille, and is in a sense a pre-braille exercise" (p. 47).

Language development begins with and closely parallels auditory discrimination which was discussed earlier (Lowenfeld, Abel, & Hatlen). Verbal communication plays an important role in language development since the child learns language through listening even when he or she cannot yet respond. Verbal communication also helps the blind child maintain contact when tactual contact is not possible or desirable. Besides talking, verbal contact can also take the form of singing, humming, or reading aloud.

As a child's understanding and use of language increase, so does his or her need for verbal interaction (Lowenfeld, Abel, & Hatlen, 1969). Language can be a valuable tool for the blind

child to use in learning about the environment. As Williams (1980) said, "Explanation and discussion are certainly part of getting to know the physical world" (p. 47).

Before beginning to read, the child should be able to "(a) speak clearly enough to be understood by others (b) . . . ask pertinent questions related to the function of simple objects, (c) answer questions directly (not one word answers but explanatory answers), and (d) . . . communicate certain types of information such as his name, address, and names of siblings" (Lowenfeld, Abel, & Hatlen, 1969, p. 127). In order to do these things, the child will have to be able to listen, comprehend, and respond appropriately.

A number of detailed activities for developing listening and speaking skills are provided in Beginnings: A Practical Handbook for Parents and Teachers.

The Tactual Road to Reading, Pamphlet III, gives suggestions for incorporating language lessons into a number of other activities.

As the child is beginning reading instruction, he or she should be able to use the Auditory Readiness Level of Listen and Think. This program will improve listening comprehension and will also require the child to follow directions and to use a crayon to mark answer shapes.

The Readiness Level of Patterns continues work on language development with a story, poem, or article for the teacher to read aloud as part of each lesson. Questions are also provided to go with each selection.

Concept Development

Since the meaning that a child derives from reading is dependent upon his or her concept development, this, too, is an important part of the readiness program. Nolan and Kederis (1969) designated concept development as "breadth of experience" (p. 43). The better a child's background of experiences when he or she starts to read, the more he or she will gain from the reading experience.

Because the blind child lacks visual input, he or she is at a real disadvantage in this area of readiness. The child is restricted primarily to the use of tactual and auditory input which are of themselves more limiting for building concepts. Also, the blind child's experiences are more limited because moving about in the environment is more difficult, and he or she is less motivated without vision (Harley, Henderson, & Truan, 1979).

To develop real concepts, the blind child needs to have the opportunity to handle many objects, explore many things, and go many places. Even a blind child who has developed many good

concepts can exhibit some real deficits in seemingly obvious areas where he or she has never had any real first-hand experience. No matter how well the child's language has developed, a blind child cannot develop an adequate concept through words alone. The child needs to have his or her own first-hand, concept-building experiences.

Several things are available to help with concept development. For suggestions for simple field trips for the blind child to such places as the grocery store and the playground, there is the Tactual Road to Reading, Pamphlet I, called "Learning through the Environment." Within the Tactual Road to Reading, Pamphlet IV there are ideas for making the Child's Own Books, simple braille books based on the child's own experiences.

PREP, the Preparatory Reading Program for Visually Handicapped Children provides many well organized ideas for presenting new concepts to the blind child. PREP also includes ten books, one related to each of the concept areas presented. These books contain stories in both print and braille about simple raised-line geometric shapes.

To see if the child has mastered the concepts he or she will need to succeed in beginning reading, the Tactile Test of Basic Concepts can be given.

On the Readiness Level of Patterns, concept development is emphasized as a part of each lesson. Activities involving concepts such as up and down, above and below, shapes, body parts, time, size, place, and analogous relationships promote real understanding rather than verbalizing.

"Reading should not begin unless the child has the background of experiences necessary to relate what he is reading to his personal life" (Lowenfeld, Abel, & Hatlen, 1969, p. 126). For the blind child who brings good auditory, tactual, language, and conceptual skills to the braille page, reading will be both pleasurable and relevant. Helping blind children acquire these readiness skills is a job worth doing.

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